

(12) **UK Patent Application** (19) **GB** (11) **2 363 400** (13) **A**

(43) Date of A Publication 19.12.2001

(21) Application No 0014441.0

(22) Date of Filing 12.06.2000

(71) Applicant(s)
Hedley Industries PLC
(Incorporated in the United Kingdom)
Downing Street, Smethwick, WARLEY,
West Midlands, B66 2PA, United Kingdom

(72) Inventor(s)
Robin James Eley

(74) Agent and/or Address for Service
Laurence Shaw & Associates
5th Floor, Metropolitan House, 1 Hagley Road,
Edgbaston, BIRMINGHAM, B16 8TG, United Kingdom

(51) INT CL⁷
E04H 17/16

(52) UK CL (Edition S)
E1D DLEKN D2036 D402 D545

(56) Documents Cited
FR 002409358 A US 6010116 A US 5556080 A

(58) Field of Search
UK CL (Edition S) E1D DLCKM DLCKN DLEKMN
DLEKMNW DLEKMSV DLEKMSW DLEKN
INT CL⁷ E04H
ONLINE: EPODOC, WPI, PAJ

(54) Abstract Title
A security fence

(57) A security fence (1) comprises at least two vertical profiled pales (2), a panel (3) between the pales, the panel having a body portion (7) to rest on the reverse of one pale with bolt holes spaced along the length and a raised portion (8) to lie behind one of the edges of the other pale and a rail (4) having bolt holes extending horizontally and across the reverse of the pales. Bolts or rivets (6) extend through aligned holes in the rail, the body portion of the panels and the pales.

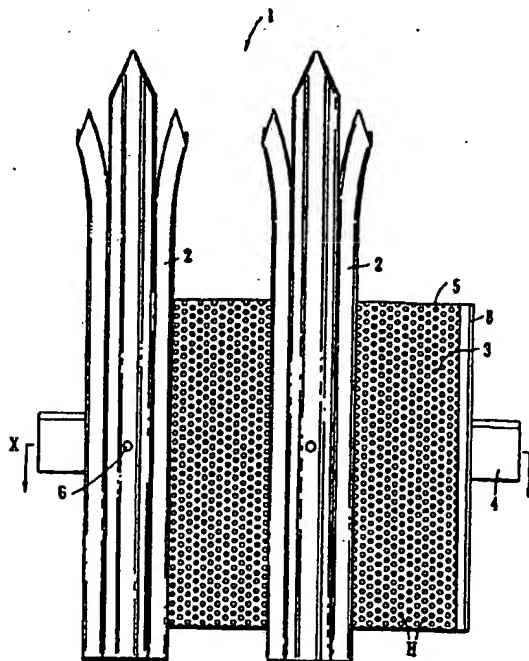


FIG. 1

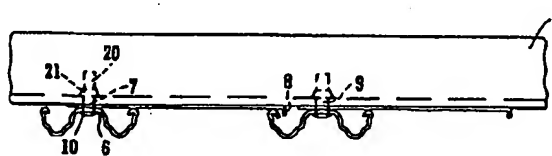


FIG. 2

1/2

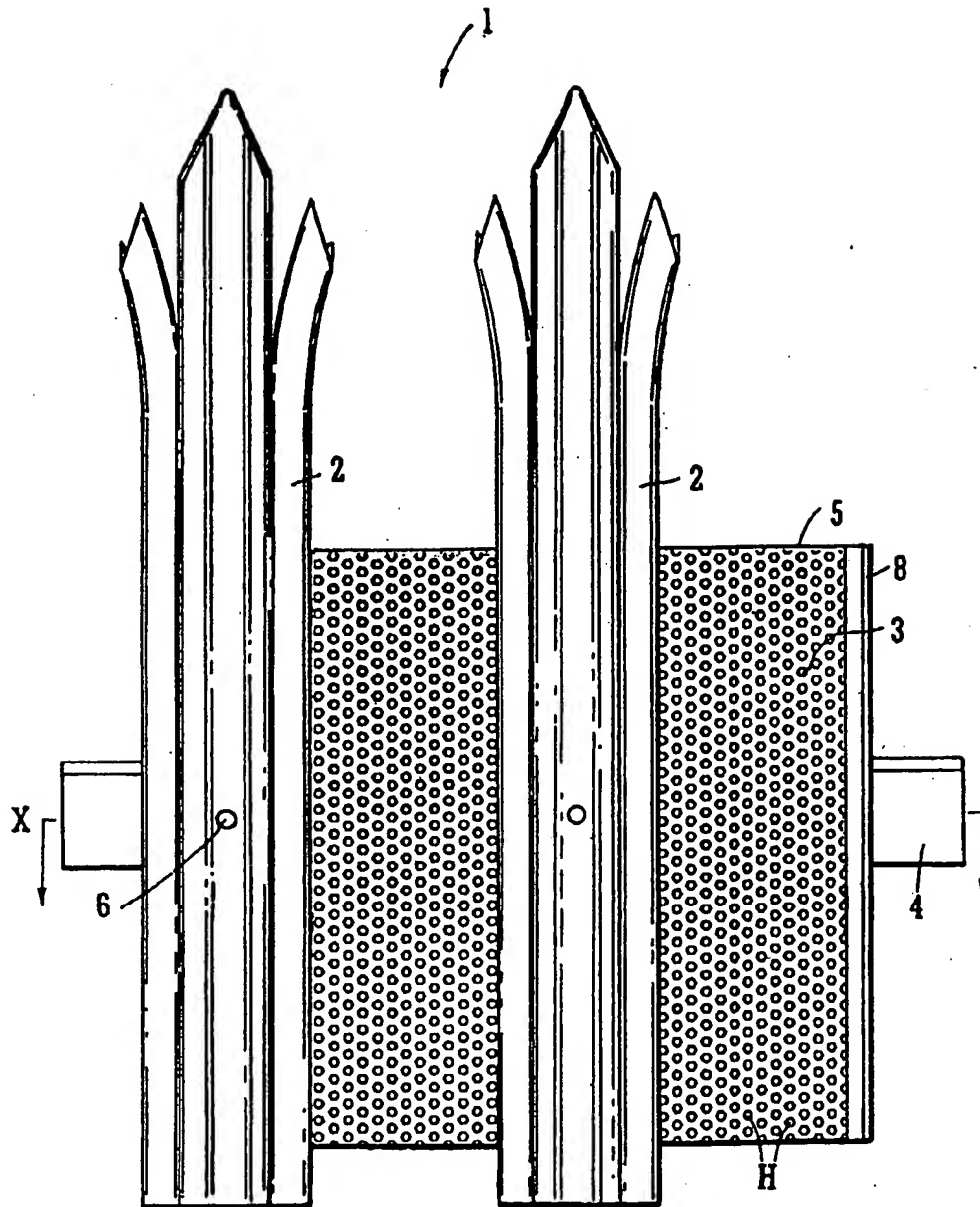


FIG. 1

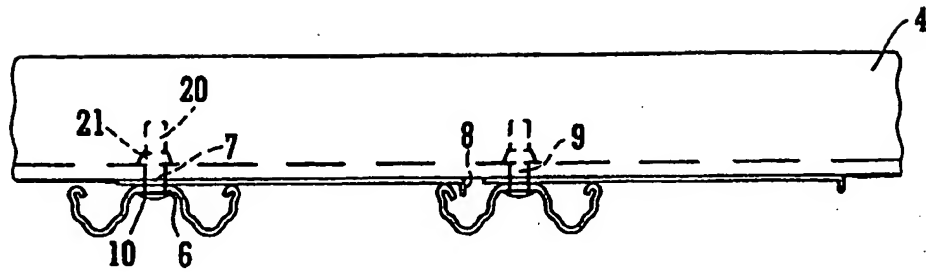


FIG. 2

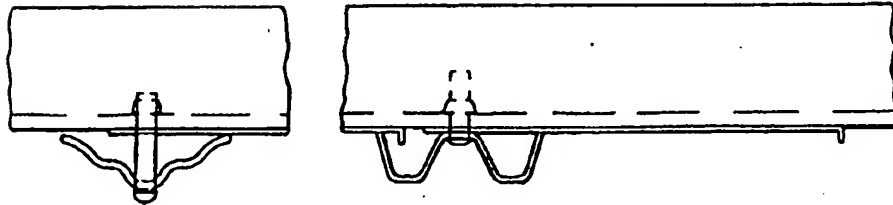


FIG. 3

SECURITY FENCE

The invention relates to a security fence. It is known to construct such a fence of spaced apart posts, usually referred to as pales, linked together by horizontal bars. Such fences do not generally provide enough security. The determined burglar is able to get between neighbouring pales and prise them apart using a crow-bar or the like to get access to the fenced off area. It is an object of this invention to address this problem.

According to this invention in one aspect there is provided an assembled security fence comprising at least two spaced apart vertical profiled pales; a panel between the pales, the panel having a body portion to rest on the reverse of one pale with bolt holes spaced along the length, and raised portion to lie behind one of the edges of the other pale; a rail with bolt holes extending horizontally and across the reverse of the pales; bolts or rivets extending through aligned holes in the rail, the body portion of the panels and the pales; the pales, panels and rails being secured together by a nut on the bolt or a collar on the rivet.

The panels may take a variety of forms. The panel may be solid but preferably perforations are present in the body portion of the panel to permit a degree of visibility through the fence. The panels may be solid or even of chain line, wire mesh or expanded metal.

The pales may be given a wide variety of profiles for example a corrugated V, corrugated W or a D.

The fence may be assembled in a variety of steps. According to the invention in another aspect there is provided a method of assembling a security fence, comprising the steps of:

- locating a rail having bolt holes located along the rail on an upright post with the bolt holes facing forwards;
- locating a panel having a bolt hole and gripping means on the rail such that the bolt hole is aligned with the bolt hole of the rail;
- locating on the panel a pale such that the bolt hole of the pale is aligned with the holes of the panel and the rail and the raised portion of the panel rests behind the edge of the adjacent pale, and
- inserting a bolt or rivet through the aligned holes and placing a nut/collar on the end thereof.

According to the invention in another aspect there is provided a kit of parts for assembling a security fence, the kit comprising:

- at least one panel having a bolt hole located in one longitudinal margin and an upturned lip extending along one or both longitudinal edges;
- at least two profiled pales having bolt holes spaced along the length thereof;
- a rail having bolt holes spaced apart along the length of the rail;
- bolts or rivets to pass through aligned bolt holes, and
- nuts or collars to be fitted to the bolts to fasten the components together.

In order that the invention may be well understood it will now be described by way of example only with reference to the accompanying diagrammatic drawings, in which:

Figure 1 is a front elevation of part of a security fence of the invention;

Figure 2 is a section taken along the line X-X of Figure 1, and

Figure 3 is a section of different pales.

A security fence 1 as shown in Figure 1 comprises spaced apart metal pales 2 (two only shown), a panel 3 between the pales 2, and a rail 4 extending horizontally across the reverse face of the pales 2. A bolt receiving hole 6 is present in the central portion 10 of each pale, to align with the or each rail 4.

Each panel 3 has a body portion 5 having a bolt hole 7. A lip portion 8 is turned down from either one or both long sides of the panel 3 to act as a gripping means. The panel has a pattern of small holes H, as shown in Figure 1.

The rail 4 extends horizontally across the panels 3 and pales 2. The rail 4 has spaced apart bolt receiving holes 9. The rail 4 is generally of L-section to increase the strength of the fence reducing the risk of vandals breaking through the fence.

To assemble the fence 1 the bolt holes 6, 7, and 9 of the pale 2, panel 3 and beam 4 respectively are aligned, and a bolt 20 passed therethrough, and a nut 21 fastened thereon to

hold the components secure. This may be done when the ends of the rail are engaged with upright concrete posts, not shown.

The invention is not limited to such a method of assembly. For example the pale of W section shown in Figure 2 may be the V shape or D shape shown in Figure 3. The bolt 11 and nut 11 maybe replaced by a rivet and collar.

CLAIMS

1. An assembled security fence comprising at least two spaced apart vertical profiled pales, a panel between the pales, the panel having a body portion to rest on the reverse of one pale with bolt holes spaced along the length, and raised portion to lie behind one of the edges of the other pale, a rail having bolt holes extending horizontally and across the reverse of the pales; bolts or rivets extending through aligned holes in the rail, the body portion of the panels and the pales, the pales, panels and rails being secured together by a nut on the bolt or a collar on the rivet.
2. A fence according to Claim 1, wherein small perforations are present in the body portion of the panel to permit a degree of visibility through the fence.
3. A method of assembling a security fence, comprising the steps of:
 - locating a rail having bolt holes located along the rail post with the bolt holes facing upwards;
 - locating a panel having a bolt hole and gripping means on the rail such that the bolt hole is aligned with the bolt hole of the rail;
 - locating on the panel such that the bolt hole of the pale is aligned with the holes of the panel and the rail and the raised portion of the panel rests behind the edge of the adjacent pale, and

- inserting a bolt or rivet through the aligned holes and placing a nut or collar on the end thereof.

4 A kit of parts for assembling a security fence, the kit comprising:

- at least one panel having a bolt hole located in one longitudinal margin and an upturned lip extending along one or both longitudinal edges;
- at least two profiled pales having bolt holes spaced along the length thereof;
- a rail having bolt holes spaced apart along the length of the beam;
- bolts or rivets pass through aligned bolt holes and nuts or collars to be fitted on the bolts to fasten the components together.